IN THIS ISSUE:
TEACHING AS INQUIRY

CTE View—Dan Bernstein shares how his inquiry into teaching reinvigorated his work. What had become routine is now a source of intellectual stimulation. Page 2.


Perspectives—An excerpt of one of Randy Bass’ key works, “The Scholarship of Teaching: What’s the Problem?” is featured in Perspectives. Pages 4 and 5.

Innovations—In her column, Susan Zvacek considers ways that technology enhances student learning. And applications for CTE’s Best Practices Institute and fall programs are due March 28. Page 6.

Good Work—Holly Storkel, a KU faculty member who has done exemplary work on teaching as inquiry, is profiled on page 7.

End Note—Mary Taylor Huber and Pat Hutchings identify four defining features of teaching as inquiry: questioning, gathering and exploring evidence, trying out and refining new insights, and going public. Page 8.

Seeing teaching as inquiry a key part of teaching as intellectual work

In the introduction to one of her most important works, Making Teaching Community Property (1996), Pat Hutchings proposes that teaching, like other forms of scholarly activity, is substantive, intellectual work. Hutchings states, “Teaching is a matter … of selecting, organizing, and transforming one’s field so that it can be engaged and understood at a deep level by students. Like scholarly research, our courses are acts of intellectual invention, and our teaching of those courses enacts the ways we think about and pursue our fields of study” (1).

Hutchings draws three corollaries for teaching as scholarly work. The first is to see teaching as a process of ongoing inquiry and reflection. The author believes that “teaching is a matter not simply of standing and delivering (no matter how skillfully or with what eloquence) but also of examining and advancing one’s knowledge and practice” (1).

Her second corollary is the need for collegial exchange and publicness. Hutchings refers to a Lee Shulman essay entitled “Teaching Alone, Learning Together,” in which he points out how hard it is in the confusion of the classroom for faculty members to see themselves as teachers and, therefore, to know what and how to improve. Shulman suggests that assistance from colleagues is what’s needed.

Hutchings’ third corollary of teaching as scholarly work is that faculty members take professional responsibility for the quality of their role as teachers. Hutchings notes, “In the context of research, faculty belong to scholarly communities that serve to set standards for the field—not in rigid exclusionary fashion, but as a constant process of defining and redefining the field, identifying and addressing its major issues, determining what’s important, making judgments about work that is (and is not) seminal” (2–3).

The conclusion of Hutchings’ piece has become more significant the last few years. She suggests that if “teaching is a scholarly activity, with all that implies, then faculty must play a central role in ensuring and improving its quality. Doing so is a professional responsibility, … and it’s also a practical necessity. For if faculty do not take charge of ensuring (and setting the standards for) the quality of teaching, bureaucratic forms of accountability from outside academe will surely rule the day” (3).

—JE

Most professors are fortunate to have lengthy careers, with a work life that provides many opportunities for acquiring new skills and reinventing one’s focused inquiry. It is also a work life that can become stale when similar activities are repeated year after year. About 20 years into my career I found that my teaching was on auto-pilot and was no longer a source of intellectual stimulation. I continually updated the content of my courses, and I created new courses needed by my department. I offered seven different preparations in rotation, but each course unfolded in a predictable way. I was no longer looking forward to teaching, and even my graduate seminars did not feel fresh.

Through a program for senior faculty members, I spent time with teachers from several disciplines who shared an interest in enhancing student understanding. During an academic year we met a total of five weeks for conversation, planning and reading about teaching and learning. We identified challenges we faced, and we compared notes on strategies we thought might work. Each time we got together we talked about our successes and failures, and we shared student work as evidence of what our courses had accomplished (or not).

The meetings had a familiar feel to them, being occasions for exchanging references to interesting articles and offering insights into what we observed as scholars. We discovered a wide range of approaches to both teaching and analyzing learning, resulting in some fascinating conversations about ways of knowing.

For my part I was challenged to defend my use of essay exams about conceptual and theoretical analysis in psychology. Colleagues questioned whether my students really understood the abstract language they were using on my tests. Over the course of the year I offered my target course twice, changing the measures from abstract descriptions to problem based essays that required use of theoretical constructs in addressing a specific example. Much to my chagrin, it turned out my colleagues were correct; my students were mimicking my conceptual language but they did not understand it well enough to solve specific problems.

This realization set off what became a seven year journey as I changed many features of my teaching and my students’ learning activities in that single course. Always in search of better problem solving, I tried many approaches and I sought examples of other teachers’ work, in and outside of psychology. Without my realizing it, the teaching portion of my work came to resemble the research portion; I was engaged in a continuous inquiry into better ways to reach a specified intellectual goal. I started looking forward to teaching my class, as I had new ideas to try out and I was eager to find out how well students would do in demonstrating their understanding to me.

It is certainly possible that I may have become reinvigorated by teaching more new courses or by collaborating with colleagues in team-taught or interdisciplinary courses. Those are good ways to keep work fresh. I have noticed, however, that the things I learn about effective teaching in one course carry over to other courses. I feel eager to try out new insights from a target course to see how well they promote learning in a different topic or with students at a different level (they generalize well, it turns out).

My inquiry into teaching is not a formal research area, with a requirement of evidence and publication. I simply pay attention to natural products of the teaching I do anyway. Instead of shredding student work, I treat it as an archive of our collective intellectual work and I learn what I can about the success of my courses. I am amazed how much I learn by thinking of their work as evidence of my teaching, and it has been good to see that I enjoy teaching again when I approach it this way.
Randy Bass to present workshops April 23 and 24

On April 23 and 24, Prof. Randy Bass, Georgetown University, will present a series of workshops for KU faculty members and instructional staff. The workshops will focus on why and how faculty members can study facets of their teaching. At press time, session times and locations were still being set. Details about Bass’ visit will be posted on CTE’s web site, www.cte.ku.edu.

An excerpt of one of Bass’ articles on his workshop topic can be found on pages 4 and 5 of this issue of *Teaching Matters*.

Bass is assistant provost for teaching and learning initiatives and executive director of the Center for New Designs in Learning and Scholarship, which supports faculty work in new learning and research environments.

He is also director of the Visible Knowledge Project (VKP), a five-year scholarship of teaching project exploring the impact of technology on learning in the humanities. In conjunction with the VKP, he is also director of the American Studies Crossroads Project, an international project on technology and education in affiliation with the American Studies Association.

Bass has been working with educational technology since 1986 and has directed or co-designed a number of electronic projects and publications on the use of technology in teaching culture and history. In 1999, he won the EDUCAUSE Medal for outstanding achievement in information technology and undergraduate education.

Bass is an associate professor of English and a member of the American Studies Committee at Georgetown University.

For more information, contact CTE at 864.4199 or cte@ku.edu.

CTE to sponsor sessions ranging from peer review to CPS

From late February through mid-April, CTE is sponsoring these workshops and discussions:

**February 26, 12 - 1 PM**
Lunch and Conversation: “Avoiding Faculty Fatigue” Strategies for life-long teachers.

**February 27, 3 - 4 PM**
Peer Review Workshop: “Department Chairs and Peer Review: Best Ways to Help Junior Faculty Members” Specific ways that chairs and unit heads can help faculty members meet peer review requirements.

**March 5, 12 - 1 PM**
Lunch and Conversation: “Understanding and Meeting the Needs of Students with Psychiatric Disabilities” Best ways to support students with these disabilities, as well as University resources that faculty members can tap into.

**March 8, 3 - 4 PM**
Peer Review Workshop: “Faculty Mentors & Peer Review” How to approach the peer review process, from both sides of the equation.

**March 26, 3 - 4 PM**
Learning Communities Workshop: “A New Perspective on Evaluating Student Work” A protocol that gives teachers opportunities to discuss students’ work, integration and growth.

**April 3, 3 - 4 PM**
CPS Workshop: “Why Consider Classroom Performance Systems?” A discussion of how CPS is improving students’ learning, based on what KU faculty are seeing in courses with CPS. Co-sponsored by CTE and IDS.

**April 10, 12 - 1 PM**
Lunch and Conversation: “Teaching Strategies of Kemper Teaching Fellows” A report of the teaching behaviors and instructional approaches that some Kemper Teaching Fellows have found contribute the most to their effectiveness as teachers.
The scholarship of teaching: What’s the problem?

Randy Bass, Georgetown University

One telling measure of how differently teaching is regarded from traditional scholarship or research within the academy is what a difference it makes to have a “problem” in one versus the other. In scholarship and research, having a problem is at the heart of the investigative process; it is the compound of the generative questions around which all creative and productive activity revolves. But in one’s teaching, a problem is something you don’t want to have, and if you have one, you probably want to fix it. Asking a colleague about a problem in his or her research is an invitation; asking about a problem in one’s teaching would probably seem like an accusation. Changing the status of the problem in teaching from terminal remediation to ongoing investigation is precisely what the scholarship of teaching is all about. How might we make the problematization of teaching a matter of regular communal discourse? How might we think of teaching practice, and the evidence of student learning, as problems to be investigated, analyzed, represented, and debated?

Definitions

Two related challenges are implicit in this transformation. … [First,] what are some of the ways that we can investigate and analyze the complexities of teaching and learning? And, what are some ways that our investigations and analyses can be represented, communicated, and brought forward into professional conversation?

These questions are at the core of the Carnegie project on the scholarship of teaching … Over time, “scholarship of teaching” has come to imply not merely the existence of a scholarly component in teaching, but a particular kind of activity, in which faculty engage, separate from the act of teaching, that can be considered scholarship itself. “For an activity to be designated as scholarship,” argues Lee Shulman, the President of the Carnegie Foundation for the Advancement of Teaching, “it should manifest at least three key characteristics: It should be public, susceptible to critical review and evaluation, and accessible for exchange and use by other members of one’s scholarly community.” These are core components of scholarship, and the features by which “scholarship properly communicated and critiqued serves as the building blocks for knowledge growth in a field” (5).

To apply this model to teaching, or to think it even possible to produce a scholarship of teaching, there first needs to be a fundamental shift in how one defines teaching as activity and object of investigation. As Shulman puts it, “Too often teaching is identified only as the active interactions between teacher and students in a classroom setting (or even a tutorial session). I would argue that teaching, like other forms of scholarship, is an extended process that unfolds over time” (5).

Shulman describes that process as embodied vision, design, interactions, outcomes, and analysis. With these elements, the extended act of teaching becomes like the extended act of traditional scholarship or research. It includes a broad vision of disciplinary questions and methods; it includes the capacity to plan and design activities that implement the vision; it includes the interactions that require particular skills and result in both expected and unexpected results; it includes certain outcomes from that complex process, and those outcomes necessitate some kind of analysis. Like scholarship, teaching also involves what Daniel Bernstein calls a “transactional relation” between teaching practice and student performance. “Indeed such a transactional relation [between scholarly activity and the results of that activity] is a benchmark of excellence in scholarly practice” (77). There is then a tight connection between the shift to seeing teaching as an activity over time and a belief in the visibility and viability of teaching problems that can be investigated as scholarship, not merely for the purpose of “fixing” them.
A Problem I Could Live With
My own engagement with the scholarship of teaching followed a similar trajectory from seeing my teaching as a problem (or failure) to seeing in my teaching a set of problems worth pursuing as an ongoing intellectual focus. As with many people, my heightened attention to teaching was occasioned by a crisis. Three years ago, after introducing a number of experimental electronic literacy components into my courses, my teaching evaluations plummeted. I now know that this is not too uncommon when teachers significantly revise their teaching, especially involving educational technology. As little solace as that fact is now, it probably would have meant even less to me at the time, occurring as it did the year prior to tenure. This was particularly perilous in my case, as I had dedicated my whole career to new technologies in the humanities, including the subject of technology and pedagogy. A failed semester proposed to deconstruct my entire portfolio. I felt an acute pressure to reconstruct my courses and teaching methods one element at a time, and to justify, track, and evaluate each component of that reconstruction.

Over the next year and a half I revised some courses and created others from the ground up ... In this process of reflection and redesign, I resolved to make every course component intentional. I tried to articulate for myself the reasoning behind every aspect of the course, especially the connections between technology and discipline-based pedagogy. In doing so, I found myself asking questions about student learning I had never asked before. For a decade I had had good success as a teacher: positive feedback, strong evaluations, evidence (anecdotal and otherwise) that students learned something in my courses.

Yet, I now realized I knew very little about why certain students did better than others. Or, more generally, I knew very little about how students came to know the material I was teaching. Ever since graduate school I had taught mostly the way I had been taught, and tended to replicate the pedagogies that worked best—quite frankly—on me (or slight variations of me). Now that I was trying to change my teaching radically, those naturalized teaching methods and the assumptions behind them were exposed to be without any clear scaffolding or support by the evidence of learning, however sound or useful some of the approaches were. ...

My journey that had begun with a crisis had progressed to a problem, in fact a set of problems. The ending had become a new beginning where the broad set of questions that had been raised in the process of rethinking my courses were now coming into focus as clear lines of inquiry that I wanted to investigate over the next several years. My objectives in this investigation do not replace my interest in teaching well (and better), and to make each semester’s experience for students worthwhile; but I also want to look at a set of questions over time, both for my own professional development and as a contribution to the scholarship of teaching in my field.

Against the Grain
It takes a deliberate act to look at teaching from the perspective of learning. Actually, it takes a set of acts—individually motivated and communally validated—to focus on questions and problems, gather data, interpret and share results. The range of questions may take many different forms. Data may be quantitative or qualitative, based on interviews, formative assessment instruments, test performances, student evaluations, peer review, or any combination ... The scholarly design could vary from tracking three students of ranging abilities from the beginning of the semester to the end, to studying group dynamics in videotape of student collaborative work, to comparing and contrasting content analysis of student written work across semesters. The object of analysis may range from acquisition of basic skills to development of personal values or transformation of whole knowledge paradigms. ...

Ultimately, the measure of success for the scholarship of teaching will not be the degree to which it can ... discover solutions worth implementing, but the extent to which it discovers problems worth pursuing.

—Excerpt from *Inventio*, Feb. 1999

Bernstein, Daniel. “Putting the Focus on Student Learning.” *The Course Portfolio: How Faculty Can Examine Their Teaching to Advance Practice and Improve Student Learning.*, 77-83.

Does technology add value to your classes?

Susan Zvacek, IDS

When do students learn more: When they take a course taught by a teacher in a traditional classroom or when they take that same course offered online? Would you be surprised to hear that there’s no difference? (Yes, it was a trick question.) If we compare two courses in which the only variable is the use of technology, there’s no significant difference in student achievement. In fact, so many studies have shown this to be the case that it’s come to be known as the NSD Phenomenon.

So if that’s true, then why bother with expensive and time-consuming technology at all? Because although the machines don’t make a difference, they enable the things that do. Translation? We do know that certain instructional strategies can lead to increased learning and many of these strategies work best in technology-enhanced environments. We also know that learning is retained longer when students are actively engaged with course content, and technology can facilitate this engagement in ways that are difficult to do (if not impossible) in the traditional classroom.

For example, learning is reinforced when students have an opportunity to practice newly-acquired skills and get feedback on how well they’re progressing. You could assign dozens of homework problems every day, but do you really have time to grade all of them? What if, instead, you created an online practice quiz that presented questions drawn randomly from a pool? Feedback could be provided automatically and students have the option to take the quiz multiple times.

We also know that some content requires reflection and a chance to frame ideas within the context of assigned readings. An in-class discussion may be great for this, but is everyone going to have an opportunity to participate? What about students who understand the ideas but don’t articulate them well on the spur of the moment or because English is not their first language? Online discussions could be ideal for this. They allow every student to take the floor and give everyone a chance to think about what he or she wants to say before answering.

Another example could be that of students learning to work as part of a collaborative team. Group work sometimes has a bad reputation among students due to unequal participation of group members and logistical problems of convening the group outside of class time. With a group wiki site, students can share the work without being in the same place at the same time, and you can not only track the group’s progress but also see who contributed what to the resulting product.

So, does technology enhance student learning? Sure, when it’s used to implement strategies that we know result in learning and when it’s used to engage students with course content. “Otherwise,” as Edward R. Murrow said, “it’s nothing but wires and lights in a box.”

Best Practices Institute, fall program applications due March 28

Faculty and instructional staff members are invited to apply for the 2007 Best Practices Institute, which will be held May 22 and 23 at CTE. BPI participants learn how to design a course to maximize student learning, make the most of class time, assess learning efficiently, and represent their teaching effectiveness. The seminar is especially useful for teachers who are not well practiced with reflecting on their teaching.

Teachers with more experience reflecting on teaching are invited to apply for CTE’s Fall 2007 programs: Faculty Seminar, Faculty Fellowship or Teaching Grants.

More information about these programs, as well as application forms, are available on CTE’s web site: www.cte.ku.edu. Look under “Special Announcements” for appropriate links. Please note that applications and supporting materials for all programs are due March 28.
GOOD WORK

Systematic look leads to greater student learning

For several years, Holly Storkel, associate professor of speech-language-hearing, has been examining connections between her teaching and students’ learning. She described this work in a recent Teaching Matters interview.

What sparked your interest in studying your teaching?
I participated in CTE’s Best Practices Institute, and that made me think about my teaching. I’d never really thought about looking at student learning in a systematic way. In my previous work as a speech-language pathologist, I tracked whether treatments were working, so that experience connected with tracking student learning. Best Practices helped me learn how to do this, and other CTE programs like the Faculty Seminar followed up with it.

What are some ways that you’ve evaluated your teaching and its impact on student learning?
Primarily through my electronic portfolios. One is on the Peer Review web site (Ed note: www.courseportfolio.org; “Explore Course Portfolios” for Storkel), and one is on the CTE gallery (Ed note: www.cte.ku.edu/teachingInnovations/gallery/visibleknowledge/storkel). Across both of these, what’s common is that I reviewed students’ final grades and other information that was already in my gradebook. In addition, I looked at student work to analyze how top, middle of the road, and lower level students performed. I tried to discover which skills they were developing and which ones they were not.

What effects have you seen as a result of your work, for you as a teacher and for your students?
Taking a close look helped me identify skills that were and were not being acquired. It’s also helped me know how to change a class the next time I teach it. With each offering of a course, students learn more. I’ve also found that I can raise the bar with what I expect, since I know students can achieve course goals. Once I know they have the basics, I challenge them to go beyond that.

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About how much time have you spent on your teaching projects?
If students submit their work electronically, this kind of work adds only about 30–45 minutes a week for a graduate course. That time is spent looking at student grades, how students are progressing, and analyzing samples of work from top, middle of the road, and lower level students. In a larger, undergraduate course, if students submit their work on paper, it could reach 60–75 minutes a week. The work would be similar—looking at a range of performance and analyzing student work. In both cases, I also make notes about what I want to do the next time I teach the course.

What are you working on now?
In terms of my own teaching, I’m developing two new undergraduate courses. One was offered for the second time last fall. For it, I’ve focused on identifying and refining course goals, and I’ll start analyzing student work the next time I teach it. The other class is a general education course, so I’ve focused on appropriate goals for majors and non-majors.

What teaching projects might you work on in the future?
I’m interested in looking at more technology options and how they could add to a course—wikis, for example, as a way to engage undergraduate students in topics and help them be more active learners. That could work well with our survey course for majors and non-majors. Also, at the department level, we’d like to look at our doctoral program to see what students are learning. That might help us make connections with programs at other universities, as well as know what experiences our students need.
Four defining features of teaching as inquiry

The Carnegie Foundation for the Advancement of Teaching has been a catalyst for teaching as inquiry. Two Carnegie leaders, Mary Taylor Huber and Pat Hutchings, have written a key book about this approach, *The Advancement of Learning: Building the Teaching Commons*. In it, they propose “a definition that reflects an evolving set of ideas and practices that can and should shape the work of faculty as they bring their habits, methods, and commitments as scholars to their work as teachers—and to their students’ learning” (18).

Huber and Hutchings identify four defining features:

1. **Questioning.** In a survey of scholars from the Carnegie Academy for the Scholarship of Teaching and Learning (CASTL), the authors found that the most powerful motivator for becoming involved with teaching as inquiry was questions about student learning that the scholars wanted to explore. Huber and Hutchings note that questions about “what works” frequently lead to open-ended questions about “what happens.” “Serious work on teaching begins, that is, where all scholarship begins, with curiosity and an urge to understand more clearly what is happening and why” (21).

2. **Gathering and exploring evidence.** Teaching as inquiry “entails systematic, disciplined inquiry, and requires hard thinking about how to gather and analyze evidence” (24). The authors list an array of options for evidence, including course portfolios, student work, videotapes, ethnographic interviews, classroom observations, questionnaires, and longitudinal tracking. This is as it should be, according to Huber and Hutchings: “Teaching and learning are complex processes, and no single source or type of evidence can provide a sufficient window into the difficult questions raised by student learning. … As in any research, the challenge is to employ the right set of methods and the best sources of evidence to explore the question in ways that will be credible and significant” (24).

3. **Trying out and refining new insights.** Huber and Hutchings indicate that “those who become involved in systematic investigation of their classrooms almost universally report that the work leads to important changes” (26). Among CASTL scholars, 81 percent stated that the quality of their students’ learning has been improved by their work as scholars of teaching and learning. Sixty-nine percent believed that more of their students achieved high standards. Many also indicated that questions about student learning caused them to develop more demanding modes of student assessment. Thus, the authors suggest, the results of teaching as inquiry will be tried out and used for improvement.

4. **Going public.** “The scholarship of teaching and learning is about more than individual improvement and development—it is about producing knowledge that is available for others to use and build on” (27). Work on teaching, Huber and Hutchings believe, “is not really finished until it has been captured in ways that others can see and examine” (27). Going public may mean one of any number of forms of representation and exchange, forms that can create new angles on the process and the significance of the work. Finally, the authors note that, like other complex intellectual work, the four features are not often linear. “… the fact that its four elements occur in all kinds of permutations and rhythms makes it an easier fit with the variable rhythms of faculty life itself” (29).